
Consumer Behavior in Passenger Car Purchases in Reference to Panipat District, Haryana

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This research investigates into the dynamics of consumer behavior in the Indian passenger car market, tracing its evolution from luxury to necessity and analyzing the factors influencing purchasing decisions. With economic growth and liberalization, the automobile industry in India has witnessed significant expansion, attracted foreign investments, and introduced diverse models, intensifying market competition. Through comprehensive data analysis, the research identifies key demographic characteristics such as residential location, occupation, and income levels and examines their associations with factors influencing purchase decisions, including mode of payment, brand preference, and sources of information. Findings reveal distinct consumer preferences and behaviors between urban and rural residents, highlighting the need for tailored marketing strategies. The study underscores the significance of understanding consumer demographics and preferences for effective product positioning and market penetration. Chi-square tests confirm significant relationships between various factors, offering insights for manufacturers and marketers to refine their strategies and offerings to meet diverse consumer needs effectively. Ultimately, this research contributes valuable insights for industry stakeholders to navigate the complex landscape of the Indian passenger car market and enhance consumer satisfaction and loyalty.

introduction

In India until the mid-1980s, the consumer market had limited choices in passenger cars, viewing them primarily as luxury items. However, economic growth and increased urban purchasing power have shifted cars from luxury to necessity for middle-class families. The liberalized economy and the end of the License Raj in the 1990s spurred the automobile industry's expansion, welcoming foreign joint ventures and direct investment. This influx introduced diverse models with shorter delivery times, making the Indian market highly competitive. Global players leveraged India's market and low-cost manufacturing, driving innovation and technological advancements. Consumers now readily embrace new car models to match evolving lifestyles in the dynamic automotive landscape.

Two fundamental principles shaping the present competitive market include prioritizing customer needs and embracing a customer-centric approach. Currently, the competitive market compels producers to tailor goods to meet customer demands (Tafler, 2004). The examination of consumer purchasing habits, known as consumer behavior, furnishes insights into consumer preferences and consumption trends (Nesai, 2009). For an organization to endure, it must adeptly address consumer needs and preferences, underscored by a thorough comprehension of these dynamics. This underscores the significance of delving into consumer behavior (Hawkins et al., 2006). Such an endeavor is complex as understanding consumer behavior involves navigating intricate motivations and sudden shifts in preferences. Nonetheless, marketers must heed their customers' desires, behaviors, and buying patterns (Kotler, 2009). The purchasing behaviour of individuals is frequently influenced by subconscious factors, among which social influences hold significant sway. Particularly in sensitive markets like automotive, social factors heavily impact buying decisions. Cars hold considerable importance in people's lives, and in a competitive environment, an institution's survival hinges on consistently satisfying and retaining customers. Understanding the unconscious determinants of purchasing decisions can enhance product offerings and customer satisfaction. The variety in car production stimulates buyer interest and facilitates informed choices.

Consumer behavior encompasses a complex series of cognitive and physical processes spanning pre- and post-purchase phases (Peer & Olson, 1999). Marketers strive to discern factors influencing customer purchase decisions, broadly categorized as cultural, social, personal, and psychological dimensions, aiming to understand and meet consumer interests and demands effectively. Though marketers may not control these factors, identifying them is crucial for targeting potential buyers and tailoring products to address diverse needs.

Scope of the study

The study aims to investigate the various factors influencing consumer behavior in the purchase of passenger cars. It analyzes demographic characteristics such as residential location, occupation, income levels, and their relationship with factors influencing purchase decisions, including mode of payment, brand preference, and sources of information.

objectives

The main objectives of the study are as follows:

1. To Examine the buying behaviour of consumers.
2. To Evaluate the mode of payment choices among urban and rural consumers.
3. To Explore the relationship between income levels and preferred modes of payment.
4. To analyze the factors influencing purchase decisions among consumers.
5. To analyse the sources of information affecting purchasing decisions.

Literature review

The Indian automobile sector is on a robust growth path. Auto industry experts predict that Indian automobile sales are poised to achieve a Compound Annual Growth Rate (CAGR) of 9.5%, reaching 13,008 million by 2010. Between 2006 and 2011, India is anticipated to emerge as the fastest-growing auto manufacturer among the top 20 car-producing nations globally. The current research focuses on South West Haryana, encompassing the districts of Bhiwani and Mahendragarh (VK Kaushik and N Kaushik, 2008).

FDI Model in Emerging Economies: Case of Suzuki Motor Corporation in India stating that in India, Suzuki Motors has achieved remarkable growth and global expansion despite its short tenure, owing to its strategic investments in the Indian automobile sector (A Nayak, 2005). Suzuki Motors prioritized investments not only in its Indian partner, Maruti Udyog Limited, for passenger car manufacturing, but also in complementary areas such as suppliers, dealers, and service centers. Furthermore, Suzuki facilitated the transfer of technology and management skills to Maruti Udyog Limited and local component suppliers. Its influence also encouraged Japanese automobile component manufacturers to invest in India, attracting global passenger car manufacturers to explore opportunities in the Indian automotive industry.

The impact of brand equity on brand preference and purchase intentions in the service industries is also studied by some researchers (H Chang and Y Liu, 2009). This study focused on service brands, specifically 18 brands across three service categories. It presents a structural equation model that not only demonstrates a strong alignment with the research constructs but also illustrates the connections between brand image and brand equity, as well as brand attitude and brand equity. Additionally, the study confirms the influence of brand equity on customer preference and purchase intentions, thereby supporting the proposed research framework.

Foreign investors dominate the financial markets in Finland, displaying a sophisticated approach. An examination of their buying and selling activities concerning successful and failing stocks over various return periods in the preceding six months reveals their inclination towards momentum strategies (Mark Grinblatt and Matti Keloharju, 2000). Conversely, Finnish

investors, particularly households, exhibit contrarian behavior by purchasing losing stocks and divesting winners. The extent of contrarian behavior seems to inversely correlate with the sophistication ranking of investor types. Moreover, sophistication correlates with performance, even when adjusting for the impact of momentum strategies on future portfolio returns. Nevertheless, the performance differentials, contingent on the ability to forecast return horizons, are less pronounced compared to behavioral distinctions.

Research methodology

For the study, non-probability type convenience sampling technique was chosen. In convenience sampling technique, the researcher chooses the sampling units as per his/her convenience. The primary data was collected through a questionnaire from Panipat district of Haryana. Secondary data collected through various publications, books, magazines, internet etc. A total of 240 customers were randomly selected from Panipat. Chi-square test was applied to assess relationships between variables.

Results and Discussion

Table 1 Residential Location

Sr. No	Residential Location	No of Respondents	Percentage
1	Urban	166	69
2	Rural	74	31
	Total	240	100

The Table 1 shows that most respondents i.e. 69% belonged to urban area and 31% lived in rural area.

Table 2 Occupation of the Respondents

Sr. No	Occupation	No. of Respondents	%
1	Farmers	34	14.17
2	Businessman	72	30
3	Govt. Employees	41	17.08
4	Private Employees	52	21.67
5	Professional	41	17.08
	Total	240	100

Table 2, it can be inferred that 30 % of respondents of this study were businessman while, 21.67% were private employee, 17.08% were Govt. employee and professional and 14.17% farmers.

Table 3 Mode of Payments of Respondents

Sr. No	Mode of Payments	No. of respondents	Percentage
1	Cash	125	52
2	Installments	115	48
	Total	240	100

Table 4 Residential location and Mode of payments

Sr. No.	Mode of Payments	Residential Location		Total
		Urban	Rural	
1.	Cash	58 (34.93%)	45 (60.81%)	125
2.	Installments	108 (65.07%)	29 (39.19%)	115
	Total	166	74	240

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Table 3, depicts that 52% of consumers bought their passenger cars through cash and 48% made the purchase on instalment basis.

The Table 4 shows that 65.07% of respondents of urban area made purchase of passenger car on installment basis, while consumers of rural area with 39.19%. 60.81% of consumers of rural area bought car with cash and 34.93% urban consumers purchased with cash. It means rural consumers preferred to purchase with cash as they had not trust on instalments basis.

Chi Square Test (Table 4)

H₀: The Mode of payment is independent with residential location of consumers of passenger car.

H₁: The mode of payment is dependent on residential location of consumers of passenger car.

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Where, O is the observed frequency, E is the expected frequency.

Mode of Payments	Residential Location	Observed Frequency	Expected Frequency	O-E	(O-E) ²	(O-E) ² /E
Cash	Urban	58	86.47	-28.47	810.54	9.37
	Rural	45	38.54	6.46	41.73	1.08
Installments	Urban	108	79.54	28.46	809.97	10.18
	Rural	29	35.46	-6.46	41.73	1.18

					Total	21.82
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Degree of Freedom = $(C-1) \times (R-1) = 1 \times 1 = 1$

R and C represent the no. of rows and columns respectively in the data table.

$$\chi^2 = 21.82$$

The table value of χ^2 at 5 % significance level with degree of freedom 1 is 3.384. The calculated value of χ^2 is greater than table value. Hence, the null hypothesis is rejected, indicating that the mode of payment is dependent on residential location of consumers of passenger car. So, manufacturing companies should provide more facility of instalment to the consumers of rural area to accelerate the demands of passenger car.

The Figure 1 illustrates that majority of respondents i.e, 30% belonged to the income group of ₹400000-₹5000000 annual income. Further, 22.50% fell within More than ₹500000 income. 20.83% were reported ₹300000-₹400000 income, 15% had income of category of ₹200000-₹300000 and 11.67% under Less than ₹200000.

Table 5 reveals that 71.43% of consumers had income less than ₹200000 chose the installment system for purchasing passenger cars, whereas 28.57% favored cash. Among consumers earning more than ₹500000, 64.81% made cash purchases, while 35.19% opted for installment payments.

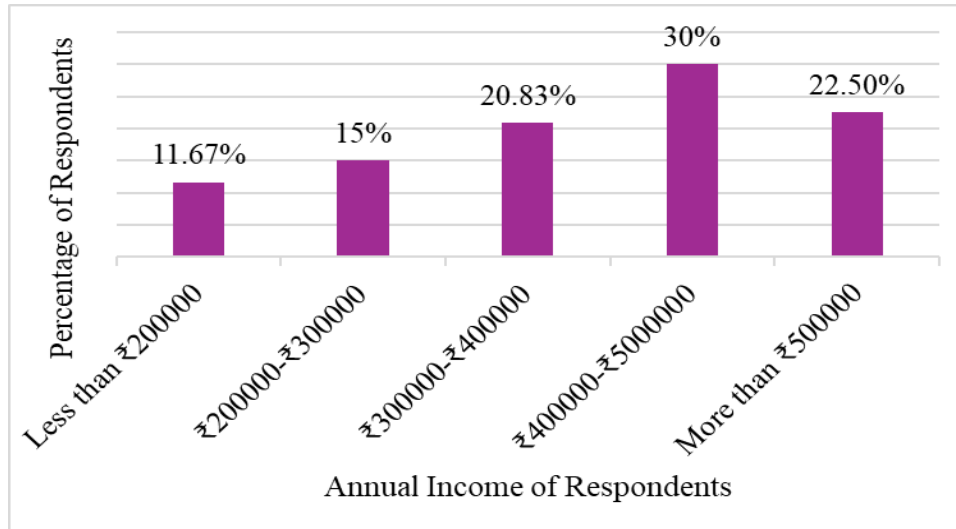


Figure 1 Income of Respondents

Table 5 Income Level and Mode of Payments

Sr. No	Income Level	Mode of Payments		Total
		Cash	Installments	
1	Less than ₹200000	8 (28.57) [#]	20 (71.43)	28
2	₹200000-₹300000	15 (41.67)	21 (58.33)	36
3	₹300000-₹400000	24 (48)	26 (52)	50
4	₹400000-₹500000	43 (60)	29 (40)	72
5	More than ₹500000	35 (64.81))	19 (35.19)	54
	Total	125	115	240

#Value in the parenthesis indicates the percentage of respondents.

Chi Square Test (Table 5)

H₀: There is no relationship between income level and mode of payments of consumers of passenger car.

H₁: There is relationship between income level and mode of payments of consumers of passenger car.

Degree of Freedom = (C-1) × (R-1) = 1 × 4 = 4

$\chi^2 = 13.28$ (calculated)

The table value of χ^2 at 5 % significance level with degree of freedom 4 is 9.49. The calculated value of χ^2 is greater than table value. Hence, the null hypothesis is rejected, indicating that There is significant relationship between income level and mode of payments of consumers of passenger car.

Table 6 Brand Preferences of Passenger Cars

Sr. No	Name of Brands	No of Respondents	%
1	Maruti-Suzuki	84	35
2	Honda	28	11.67
3	Hyundai	52	21.66
4	Tata Motors	21	8.75
5	Mahindra	22	9.16
6	Ford	15	6.25
7	Other brands	18	7.5
	Total	240	100

The Table 6 clearly indicates that Maruti -Suzuki emerged as the most favored brand among passenger car consumers, with Hyundai following closely at 21.66%. 11.67% of respondents preferred Honda brand, 9.16% liked Mahindra. Ford and other brands were preferred by 6.25% and 7.5% of respondents, respectively.

Table 7 Source of Information and Residential Location

Sr. No	Source of Information	No. of Respondents	Percentage	Urban	Rural
1	Advertisement	82	34.16	68 (41) [#]	14 (18.9)
2	Friends	67	27.92	47 (28.31)	20 (27)
3	Relatives	43	17.92	15 (9)	28 (37.83)
4	Dealers/Sales Executives	30	12.50	23 (13.85)	7 (9.45)
5	Others	18	7.50	13 (7.83)	5 (6.75)

	Total	240	100	166	74
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#Value in the parenthesis indicates the percentage of respondents.

From the Table 7, it can be inferred that advertisements are the primary source of information for consumers, particularly in urban areas, indicating the effectiveness of marketing campaigns in urban settings. Friends and relatives play significant roles in influencing consumer choices, with friends being more consistent across urban and rural areas, while relatives have a more substantial influence in rural areas. Dealers and sales executives also play a notable role in providing information to consumers, particularly in urban areas. Understanding these patterns can help marketers tailor their strategies to target different demographic segments effectively, considering the varying influences in urban and rural contexts.

Chi Square Test (Table 7)

H₀: There is no relationship between Source of Information and Residential Location of consumers of passenger car.

H₁: There is relationship between Source of Information and Residential Location of consumers of passenger car.

Degree of Freedom = (C-1) × (R-1) = 1 × 4 = 4

$\chi^2 = 32.59$ (calculated)

The table value of χ^2 at 5 % significance level with degree of freedom 4 is 9.49. The calculated value of χ^2 is greater than table value. Hence, the null hypothesis is rejected. Hence, there is a significant relationship between source of information and residential location of consumers of passenger car.

Table 8 Factors Influencing the Purchase Decision

Sr. No	Factors	No. of Respondents	%
1	Fuel Efficiency	22	9.16
2	After Sale Service	25	10.41
3	Price	62	25.84
4	Appearance	38	15.83
5	Promotion	52	21.67
6	Safety	25	10.42
7	Durability	16	6.67
	Total	240	100

The provided data in the Table 8 represents the factors influencing consumers' decisions regarding their preferred brand of passenger cars. Fuel efficiency is a significant factor for 9.16% of the respondents. After-sale service is crucial for 10.41% of the respondents. Price emerges as the most influential factor, with 25.84% of respondents considering it crucial. This underscores the importance of affordability and competitive pricing in the decision-making process for a significant portion of consumers. Appearance is deemed important by 15.83% of the respondents. Promotion, including advertising and marketing efforts, influences 21.67% of

respondents. This indicates the impact of promotional activities in shaping consumer awareness and preferences for car brands. Safety considerations are significant for 10.42% of the respondents. Durability is a factor for 6.67% of respondents.

Table 9 Factors Influencing the Purchase Decision and Residential Location

Sr. No	Factors	Residential Location		Total
		Urban	Rural	
1	Fuel Efficiency	8	14	22
2	After Sale Service	19	6	25
3	Price	41	21	62
4	Appearance	29	9	38
5	Promotion	47	5	52
6	Safety	17	8	25
7	Durability	5	11	16
	Total	166	74	240

H_0 : There is no relationship between Factors Influencing the Purchase Decision and Residential Location of consumers of passenger car.

H_1 : There is relationship between Factors Influencing the Purchase Decision and Residential Location of consumers of passenger car.

Degree of Freedom = $(C-1) \times (R-1) = 1 \times 6 = 6$

$\chi^2 = 34.61$ (calculated)

The table value of χ^2 at 5 % significance level with degree of freedom 6 is 12.59. The calculated value of χ^2 is greater than table value. Hence, the null hypothesis is rejected. Hence, there is a significant relationship between Factors Influencing the Purchase Decision and Residential Location of consumers of passenger car.

conclusion

The research paper investigates various factors influencing consumers' decisions in purchasing passenger cars. Urban residents constituted most respondents at 69%, while rural residents comprised 31%. The occupation distribution showed that businessmen constituted the largest group at 30%, followed by private employees (21.67%), government employees (17.08%), and professionals (17.08%), with farmers accounting for 14.17%. A significant portion of consumers (52%) preferred cash payments, while 48% opted for installment plans. Rural consumers showed a higher preference for cash payments compared to urban consumers, indicating a level of distrust or preference for immediate payment options. A relationship was found between income levels and payment modes. Consumers with higher incomes tended to prefer cash payments, while those with lower incomes opted for installment plans. Maruti-Suzuki emerged as the most favored brand among passenger car consumers, followed by Hyundai and Honda. The study highlighted varying brand preferences among consumers, indicating the importance of brand reputation and marketing strategies. Advertisements were the primary source of information for consumers, particularly in urban areas, followed by friends, relatives, dealers/sales executives, and other sources. Different sources influenced consumer decisions, with friends and relatives playing significant roles, especially in rural areas. Price was the most influential factor, followed

by promotion, appearance, after-sale service, fuel efficiency, safety, and durability. Urban and rural consumers showed varying preferences for factors influencing their purchase decisions, highlighting the importance of tailoring marketing strategies based on residential location. Chi-square tests indicated significant relationships between factors such as mode of payment, income levels, sources of information, factors influencing purchase decisions, and residential locations of consumers.

In conclusion, the research underscores the importance of understanding consumer preferences, demographics, and decision-making processes in the passenger car market. Manufacturers and marketers can use these insights to tailor their products, pricing strategies, promotional activities, and distribution channels to better meet consumer needs and preferences across different segments and locations.

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